Frequently Asked Questions (FAQ) about the Lead and Copper Rule Revisions (LCRR)

Lead Service Line inventory (LSLI) and Lead Service Line Replacement Plan (LSLRP)

1) **Who is impacted by the LCRR and LSL inventory requirements?**

   All community (COM) and non-transient non-community (NTNC) systems.

2) **When must the LSL inventory be submitted to MassDEP?**

   October 16, 2024. Please note that all systems must make their LSL inventories available to the public and systems serving greater than 50,000 people must post their LSL inventory on the internet.

3) **Are PWSs required to make the lead service line inventory publicly available?**

   Yes, all public water systems (PWSs) must make their lead service line inventory publicly accessible. The publicly accessible inventory must provide a location identifier (e.g., such as a street address, customer number, block, intersection, landmark, or any other geographic marker associated with the service line) for each lead or galvanized requiring replacement service line. Please note, if the system serves more than 50,000 people, you must make your inventory publicly available online.

4) **What are the basic requirements for the service line inventory?**

   Public water systems must conduct an inventory of all service lines. Inventory must include all service lines connected to the public water distribution system regardless of ownership status (e.g., where service line ownership is shared, the inventory would include both the portion of the service line owned by the water system and the customer-owned portion of the service line.

   Service line materials must, at a minimum, be classified as one of the following:

   - **Lead:** where the service line is made of lead both partial and full.
   - **Galvanized requiring replacement (GRR):** Any galvanized service line that is or has ever been downstream of a lead service line, or of an unknown material service line. These lines are included in the lead service line replacement program because they have demonstrated the ability to absorb lead from a lead service line and release it in the future. Replacing these lines can reduce a source of lead to the customers.
   - **Non-lead:** EPA defines non-lead service lines as those with evidence-based record, method, or techniques that they are not lead or galvanized service lines requiring replacement. The water system may classify the actual material of the service line (i.e., copper, plastic).
   - **Lead status unknown:** where the service line material is not known to be lead, galvanized requiring replacement, or a non-lead service line, such as where there is no documented evidence supporting material classification. Please note that EPA has disincentivized having large numbers of unknown service lines by requiring annual

public education and other requirements for all service connections listed as unknown.

Please see 40 CFR 141.84 for more information.

5) What if I have no lead service lines and no galvanized service lines requiring replacement?

PWSs that can demonstrate that they have only non-lead service lines must submit an initial inventory by the compliance date of October 16, 2024 but are not required to provide subsequent inventory updates to MassDEP or the public. If, in the future, your system finds a lead service line within its distribution system, it must prepare an updated LSL inventory on a schedule established by MassDEP drinking water program (DWP).

Systems with only non-lead service lines can complete and submit the LCRR-NONLSL-CERT form (more information about the LCRR-NONLSL-CERT form will follow) to MassDEP/DWP for approval once their service line inventory is ready.

If the LCRR-NONLSL-CERT is approved by MassDEP the PWS will not be required to make the inventory publicly accessible on-line and provide routine inventory updates to the State or to the public. In lieu of this requirement the PWS must post a written statement declaring that it has no LSL, GRR, or unknown service lines and explaining the sources used to make that determination.

Please note, in accordance with 310 CMR 22.19, DWP expects PWS to have an inventory of all piping material, including service lines. We encourage PWS to use this opportunity to develop and maintain such information if it is not currently compiled or maintained.

See Questions 10, 31 and 32.

6) What if only part of the service line is lead?

Any portion of the service line that is lead results in that service line being considered a lead service line.

7) What if there is no proof that a galvanized service line was never downstream of a lead line? Do these lines need to be replaced?

If the water system is unable to demonstrate that a galvanized service line was never downstream of a lead service line, it must presume there was an upstream lead service line and the galvanized line will be classified as "galvanized requiring replacement" per the LCRR.

8) Are PWSs required to verify each service line material?

Currently, the EPA LCRR does not require verification of all service lines and records. States have the option to adopt regulations that are more stringent than the federal regulation. To maximize public health protection from lead and to ensure that PWS are

providing their consumers and MassDEP with service line information that is based on their best program for providing the most accurate and best available knowledge, MassDEP/DWP recommends that all PWSs implement a program that includes verification of service line materials and records, when appropriate. Verification may include sequential sampling, field inspections, records verification, statistical analysis, etc.

A reliable inventory is important for service line replacement planning and notification of customers served by lead service lines. Water suppliers are not expected to physically verify every service line by October 16, 2024.

Please note that MassDEP is evaluating whether to include verification in the MA Drinking Water Regulations.

9) How to identify the service line materials?

Start preparing your LSL inventory by finding and organizing the existing records/data. PWSs should survey all records documenting the materials used to construct and repair the distribution system and buildings connected to the distribution system, including:

- Utility records including customer complaint investigations, and all historical service cards;
- Building Permits;
- Plumbing Codes and Plumbing Permits;
- Distribution Maps and Drawings;
- Inspection and Maintenance Records;
- Meter Installation Records;
- Capital Improvement and Master Plans;
- Standard Operating Procedures;
- Operation and Maintenance Manuals;
- Permit Files;
- Existing Water Quality Data;
- Field/visual inspection with or without full excavation;
- MassDEP's Crowdsourcing "app" for consumer service line material identification;
- Interviews with Senior Personnel, Building Inspectors, and Retirees; and,
- Community Survey.

Once all data are gathered, it should be combined into one database for LSLs that meets MassDEP/DWP minimum data requirements.

10) What if you do not believe your system has lead service lines or galvanized service lines requiring replacement?

See Questions 5, 31 and 32.

11) Is MassDEP/DWP going to require excavation work to determine service line materials for those that are unknown where written documentation is lacking or non-existent?

MassDEP/DWP will not require excavation work to determine unknown service line materials by the compliance date unless directed by EPA to do so in the future. We recommend PWSs do their best due diligence to identify all unknown service line materials using different methods, such as profile sampling, records verification, and inspections, among others.

12) Are households with galvanized requiring replacement subject to the fifth liter sample?

The fifth liter (L5) should only be collected for lead service line. (141.86(b)(3))

13) What are the Lead Service Line Replacement Plans?

All water systems with one or more lead, galvanized requiring replacement, or lead status unknown service lines in their distribution system must submit a lead service line replacement (LSLR) plan to the department by October 16, 2024. The lead service line replacement plan must be sufficiently detailed to ensure a system is able to comply with the lead service line replacement requirements in accordance with this section.
The plan must include a description of:

a) A strategy for determining the composition of lead status unknown service lines in its inventory;

b) A procedure for conducting full lead service line replacement;

c) A strategy for informing customers before a full or partial lead service line replacement;

d) For systems that serve more than 10,000 persons, a lead service line replacement goal rate recommended by the system in the event of a lead trigger level exceedance;

e) A procedure for customers to flush service lines and premise plumbing of particulate lead;

f) A lead service line replacement prioritization strategy based on factors including but not limited to the targeting of known lead service lines, lead service line replacement for disadvantaged consumers and populations most sensitive to the effects of lead; and

g) A funding strategy for conducting lead service line replacements which considers ways to accommodate customers that are unable to pay to replace the portion they own.

14) Are all PWSs required to submit a lead service line replacement plan?

No, only water systems with one or more lead, galvanized requiring replacement, or lead status unknown service lines in their distribution system must complete and submit a LSLR plan. The LSLR plan is intended to help systems comply with the lead service line replacement requirements of the LCRR and to ensure systems have a strategy for identifying lead status unknown service lines.

15) Will PWSs be required to identify the following service line materials in their LSL inventory?

- **a) brass service lines (both full and partial) — brass contains lead and these are long sections of pipe**
- **b) galvanized service downstream of an <u>existing</u> lead gooseneck**
- **c) galvanized service downstream of a <u>replaced</u> lead gooseneck**

Yes, the materials described above should be included in the service line inventory.

Brass service line does not currently meet the EPA definition of a lead service line or galvanized service line. Therefore, it does not need to be replaced at this time, but see below.

EPA defines a "Galvanized Requiring Replacement" line as those where a galvanized service line is or was at any time downstream of a lead service line or is currently downstream of a "Lead Status Unknown" service line. Being downstream of a lead connector does not make a galvanized service line a galvanized requiring replacement. However, under the LCRR, the water system must replace any lead connector (gooseneck/pigtail) it owns when encountered during planned or unplanned water system infrastructure work. Please note that MassDEP is evaluating whether to include replacement of brass service lines as a requirement in the MA Drinking Water Regulations. States have the option to adopt regulations that are more stringent than the federal regulations.

Note: MassDEP will be revising the MA DW Regulations for Lead and Copper in the near future; State regulations must be at least as stringent as the federal regulations. Although brass service lines may not be common throughout the country, they are known to exist in New England. Brass is a metal alloy that often contains lead. There have been several regulations passed to reduce lead in drinking water. In 2011 the Lead Reduction Act changed the definition of "lead-free" from 8.0 percent to 0.25 percent and required new pipes, pipe fittings, plumbing fittings, and fixtures to be lead free nationwide. The final regulatory revisions to NPDWR for lead and copper published in the Federal Register January 15, 2021, identify that brass plumbing fittings and fixtures are known to leach lead, and thus should be considered when the system is triggered into conducting a site assessment (find-and-fix) following a tap sampling site above 15 ug/L for lead. Even though LCRR does not address brass service lines, an existing brass service could be a source of elevated lead. MassDEP strongly recommends that brass service lines be identified for replacement and removed even if the PWS is currently meeting the lead

AL. MassDEP is evaluating whether to require replacement of brass service lines as part of the LSLR program. States have the option to adopt regulations that are more stringent than the federal regulations.

16) If the PWS has a lead ALE, is the PWS required to remove the materials listed in 15a-c under LCRR? If not, will MassDEP require removal in MA regs? [1]

Brass service line does not currently meet the EPA definition of a lead service line or galvanized service line. Therefore, it does not need to be replaced at this time. Galvanized downstream of an existing or replaced lead connector does not meet the definition of galvanized requiring replacement. Therefore, it doesn't need to be replaced. See more detailed information in Q15.

17) Is the replacement of materials listed in 15a-c eligible for DWSRF?

Yes. Brass is a metal alloy that often contains lead and should be replaced (see Q18 below) and therefore, is DWSRF eligible.
Under the LCRR, the water system must replace any lead connector (gooseneck/pigtail) it owns when encountered during planned or unplanned water system infrastructure work; therefore, this work is DWSRF eligible.

18) Are brass service lines classified the same as lead and galvanized downstream of lead?

No, see Question 16. According to EPA, brass service lines do not meet the definition of a lead service line. However, EPA and MassDEP encourage systems to replace them and therefore replacement of brass service lines are DWSRF eligible. We also encourage water suppliers to identify them in their inventories.

19) A Massachusetts municipality that we work with is pretty certain that the only lead components in their water systems are goosenecks. Given that, must this municipality still conduct an inventory to research and confirm that the goosenecks are the only lead components in their system, and do they need to prepare an LSL Replacement Plan for approval by MassDEP? Based on your email below, we do understand that goosenecks need to be replaced if they are encountered as part of other infrastructure projects and that, if a municipality is preparing an LSL Replacement Plan for other LSL components, it must also address the removal of goosenecks if they are also present. However, if the municipality has good reason to believe that goosenecks are the only LSL components present, are they required to expend effort to research and confirm this to be the case? If such confirmation is required, can the LSL Planning Loan be used to cover the costs for the research effort?

MassDEP is yet to promulgate its LCRR regulations and EPA has plans to issue revisions to the LCRR called the LCRI (Lead and Copper Rule Improvements).

- If a municipality/PWS is certain, based on its review of all service line records and other data sources such as active/retired employee interviews, that it has no lead goosenecks it will be expected to describe its review process and submit a declaration that states it has no LSLs, no GRRs and no unknowns. If so, then a LSLRP is not required under the LCRR.
- Every PWS must submit an inventory and a statement (if applicable) "declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines." The alternative statement "must include a general description of all applicable sources…used to make this determination." [quotes from 40 CFR 141.84(9)]. See Q31 for more information.
- If the municipality/PWS is not prepared to submit the required declaration, then we would suggest the PWS seek funding to conduct an inventory.

Please note: If MA includes lead goosenecks in its definition of LSLs in its LCRR regulations goosenecks would be included with other LSLs and PWS would need to submit both an inventory and a LSLRP.

20) What are the CCR changes that were included in the LCRR?

PWS should include in their Consumer Confidence Reports (CCR) a statement that a service line inventory has been prepared and include instructions to access the service line inventory and the non-lead service line certification, if applicable; the CCR report shall notify consumers that complete lead tap sampling data are available for review and shall include information on how to access the data.

21) Requirements for Implementation of LSLs:

(i) Am I correct in understanding that LCRR does not require PWSs to actually implement their 5-year LSL Replacement Plans unless the action level is exceeded?

PWSs that serve >10,000 people must conduct Lead Service Line Replacement (LSLR) when either:

1) their 90th percentile lead level exceeds the lead Action Level (AL) of 15 ppb, or
2) when their 90th percentile lead level exceeds the lead Trigger Level (TL) of 10 ppb but is at or below the lead AL.

The difference between these two cases is the rate of LSLR. Those above the AL must replace Lead Service Lines (LSLs) at a rate of 3% calculated on a two-year rolling basis. Those that only exceed the TL must replace LSLs at a rate approved by the state. Community PWSs that serve <=10,000 people and NTNC PWSs are subject to the small water system compliance flexibility options in the LCRR which may result in them

conducting LSLR should they exceed the lead AL but need not if the PWS recommends and the state approves a different compliance option.

(ii) If that's true, is it correct that individual LSLs that are sampled under the new tiered structure and exceed the 15 ppb for lead will need to be replaced at an individual level?

MassDEP/DWP is currently not aware of an individual LSLR requirement in the LCRR based on each homeowner's result. There are several situations that require the PWS to communicate with such homeowners (e.g., delivery of individual test results, notification of known or potential service lines containing lead, notification due to a disturbance of a known or potential service line containing lead, information when the PWS exceeds the lead TL and outreach when the PWS fails to meet the LSLR goal) but none of these require the PWS to offer to remove individual LSLs with the exception of when the homeowner themselves removes the portion of a LSL that they own.

(iii) We are aware of the MassDEP template spreadsheet for service line inventories. If a water system is not seeking funding for the planning effort under the state's funding programs, is use of the MassDEP template still required for compliance?

The LCRR requires all systems to develop a lead service line inventory, make it public and update it with every annual or triennial monitoring round. If lead service lines are present the system must also develop a lead service line replacement plan. The LCRR also requires that customers be notified annually if their home/building is served by a lead service line. The MassDEP template spreadsheet for service line inventories is not required. However, MassDEP will only accept the required service line inventory in a CSV format that follows the rules defined in the template instructions for the MassDEP template spreadsheet for service line inventories.

22) Can you please confirm – we need to identify the material of the service line where it enters the building. We do not need to create an inventory of distribution line material, correct? We primarily operate VSS with populations of less than 500.

You don't need to identify the distribution system material. You do need to identify the entire service line material between the water main to the meter (enters the building). This includes the private side and public/customer side.

23) If a home/building was built after the 1986 lead ban, what documentation will the DEP accept as proof that the service line is lead free?

If you have confidence that service lines in structures built after 1986 are not lead you can classify them in the spreadsheet as "UNK-NOLG – Unknown, definitely does not contain lead or galvanized". Please see Q32 and Q44 for more information.

24) Where can I get the LCRR Tool training materials?

- A copy of the video training is available on the MassDEP YouTube channel at https://www.youtube.com/watch?v=xxi05Zh5QyM.

- The agenda is located at https://www.mass.gov/doc/massdep-service-line-inventory-training-agenda-september-29-2022 (permalink: https://www.mass.gov/media/2499811/)

- The Q&A's are located at https://www.mass.gov/doc/qa-from-lcrr-service-line-inventory-training (permalink: https://www.mass.gov/media/2499521/)

25) I understand that to be considered a replacement under LCRR, a complete service line needs to be replaced. Does this include the gooseneck if one is present?

You are correct, if the private side is lead and not replaced the service will be considered a lead service line in the system service line inventory.

If you are aware of lead goosenecks or discover a lead gooseneck in the field the expectation is that it is removed. You are not required to make an extra effort to identify goosenecks during the initial inventory identification when records are not available.

Please note: If MA includes lead goosenecks in its definition of LSLs in its LCRR regulations goosenecks would need to be replaced.

26) Secondly, under the LCRR, my understanding is that a utility has to offer to replace, but NOT offer to pay for replacement of the service line on private property. Has MassDEP offered guidance on what a good faith effort on the part of a utility is, even if a customer refuses to pay or allow work to be performed?

MassDEP currently has not provided specific criteria to indicate a good faith effort. Such guidance will be provided when MassDEP finalizes its' LCRR regulations and guidance for PWS. However, MassDEP/DWP strongly recommends that PWS develop and include the following programs to support the public health protection goal of removing lead service lines:

a. An active outreach program, including use of social media, local health departments and other local partners, to educate consumers on the health impact of lead and the need to remove lead service lines and "get the lead out". The success of the PWS outreach program should be evaluated and updated annually to improve positive responses.
b. Rebate or incentive programs for homeowners to remove lead service lines. For example, see Boston Water and Sewer Program at https://www.bwsc.org/environment-education/lead-your-water/lead-replacement-incentive-program#:~:text=To%20apply%2C%20call%20the%20Lead,and%20is%20subject%20to%20availability .

c. PWS utilizing the DWSRF programs should take full advantage of the below market-rate interest loans for LSL Replacement. The EPA's DWSRF Lead Service Line Replacement Grant also requires 49% of the grant to be allocated as principal forgiveness to Disadvantaged Communities; this is in addition to the tiered principal forgiveness available to Disadvantaged Communities for all SRF loans. For more information see https://www.mass.gov/info-details/the-disadvantaged-community-program#loan-forgiveness-
d. Documentation of all refusals of homeowners to remove lead service lines. If a PWS exceeds the lead action level this documentation should also be reported to MassDEP and copied to the local Board of health and MA DPH.

You may also find the Lead Service Line Replacement Collaborative information of interest. See https://www.lslr-collaborative.org/about-us.html#:~:text=The%20Lead%20Service%20Line%20Replacement%20Collaborative%20is%20a%20joint%20effort,to%20millions%20of%20American%20homes.

27) Lastly, regarding funding for private side lead service lines, I've heard many times over the years that public funds cannot be used for work on private property (i.e., the private side of a water service line between the curb stop and the meter). However, this EPA publication https://www.epa.gov/sites/default/files/2020-12/documents/ej_lslr_funding_sources-final.pdf states that "Complete service line replacement is an eligible expense regardless of pipe material and ownership of the property on which the service line is located." Can you please clarify what funding is available for both public AND private side replacement?

This is correct. Public and private side (curb to meter) LSL replacement is Drinking Water SRF eligible. You may wish to review local PWS rebate and incentive programs and the Lead Service Line Replacement Collaborative information.

28) Lead goosenecks:

(i) I have a question related to lead goosenecks; the EPA guidance indicates a service line is not considered a Lead Service Line if the only lead pipe serving the building is a lead gooseneck.

Correct, EPA has not included "connectors" in their definition of a lead service line.

(ii) Also, a galvanized service line that was never downstream of a Lead Service Line but is downstream of a lead gooseneck is not considered a Galvanized Pipe Requiring Replacement.

Correct, EPA defines a "Galvanized Requiring Replacement" line as those where a galvanized service line is or was at any time downstream of a lead service line or is currently downstream of a "Lead Status Unknown" service line. Being downstream of a lead connector does not make a galvanized service line a galvanized requiring replacement.

Please note that MassDEP has not yet proposed our new lead regulations and States have the option to adopt regulations that are more stringent than the federal regulations.

29) Are we required to remove inactive services (i.e., cut off at the main) which are lead (e.g. services which previously led to buildings but the building has been razed and replaced with a parking lot)?

No. PWS are not required to remove inactive services as long as the service will not be used in the future to serve water. However, please note that the inactive lead service line should be identified in your initial service line inventory.

30) Are we required to, or do you foresee, that the "sensitive population" value will be required in order to prioritize replacement, as is stated in the EPA's Guidance for Developing and Maintaining a Service Line Inventory?

- **a. Section 5.5: Predictive Modeling**
  - **i. "Information on sensitive subpopulations and socioeconomic factors can be added as layers to enhance planning and prioritization of LSLR (Muylwyk, 2020)"**
- **b. Appendix A: Inventory Methodology**
  - **i. "3. How did you prioritize locations for service line materials investigations? For example, did you consider environmental justice and/or sensitive populations, did you use predictive modeling, and/or did you target areas with high number of unknowns?"**

MassDEP supports EPA's guidance on sensitive subpopulations and socioeconomic factors when developing replacement plans. For example, a family childcare facility in an EJ community with an unknown service line should be high priority for a verification, or if known to be lead, a LSL planned for removal. State and Federal funding opportunities for LSLR projects will incorporate, and favor, projects considering Environmental Justice as a component for the eligibility.

31) During the LSLI training a question was asked about water systems who have no lead – you responded that there was provision of the Rule that if they could document that, the Rule would allow that water system to provide a statement that they have no lead in their system instead of a detailed inventory. Could you provide the regulatory reference for that section of the federal Rule?

Systems that have no lead, galvanized requiring replacement, or lead status unknown <u>still</u> have to submit the initial detailed service line inventory by the due date (October 16, 2024) to the State. The inventory should have all service lines categorized as non-lead or

a non-lead subclassification (e.g., copper or plastic) and zero service lines categorized as lead, GRR, or unknown. However, such systems are not required to have the detailed inventory publicly accessible. Instead, a written statement declaring that the distribution system has no LSL or GRR service lines is acceptable (Template to be provided by MassDEP /DWP). Also, water systems whose inventories contain only non-lead service lines are not required to provide inventory updates to the State or to the public, provided the water system completes and submits the LCRR-NONLSL-CERT form (more information about this form will follow) to MassDEP/DWP for approval after their service line inventories have been completed. **If the LCRR-NONLSL-CERT** is approved by MassDEP the PWS will not be required to make the inventory publicly accessible on-line and provide routine inventory updates to the State or to the public. In lieu of this requirement the PWS must post a written statement declaring that it has no LSL, GRR, or unknown service lines and explaining the sources used to make that determination

If, in the future, such a water system finds a lead service line within its system, it must prepare an updated inventory. See regulatory reference below.

> *40 CFR 141.84(a)(9): When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines (regardless of ownership) in its inventory, it may comply with the requirements in paragraph (a)(8) of this section using a written statement, in lieu of the inventory, declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines. The statement must include a general description of all applicable sources described in paragraphs (a)(3), (5), and (6) of this section used to make this determination.*

Please note, in accordance with 310 CMR 22.19, DWP expects PWS to have an inventory of all piping material, including service lines. We encourage PWS to use this opportunity to develop and maintain such information if it is not currently compiled or maintained.

32) Can a public water system get a waiver from the lead service line inventory and replacement plan requirements of the Lead and Copper Rule Revisions if the system was completely constructed in 1986 (i.e., after the state lead ban)? Or does the system still need to submit an inventory? Again, if it is known that the system was built in 1986, does there have to be any "verification" of the service line materials?

All systems need to submit their inventories by the compliance date. There is no specific waiver provision in the LCRR. However, PWSs that can demonstrate that they have no lead, galvanized requiring replacement or lead status unknown service lines may submit a written statement, in addition to the inventory, by the compliance date but are not required to provide subsequent inventory updates to MassDEP or the public. To make such demonstration PWS must complete and submit to MassDEP for review and approval the LCRR-NONLSL_CERT (more information about this form will follow).

If, in the future, the system finds a lead service line within its distribution system, it must prepare an updated LSL inventory on a schedule established by MassDEP/DWP. See Q31 for more details.

Specific to the LCRR, see 40 CFR 141.84(a)(9): When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines (regardless of ownership) in its inventory, it may comply with the requirements in paragraph (a)(8) of this section using a written statement, in lieu of the inventory, declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines. The statement must include a general description of all applicable sources described in paragraphs (a)(3), (5), and (6) of this section used to make this determination.

Please note, in accordance with 310 CMR 22.19, DWP expects PWS to have an inventory of all piping material, including service lines. We encourage PWS to use this opportunity to develop and maintain such information if it is not currently compiled or maintained.

33) What is DEP/DWP recommendations on Predictive Models?

MassDEP does not endorse products including Predictive modeling products, but we encourage consultants to educate their clients on the particular product being considered so that they can make an informed decision. Public Water Systems considering Predictive Models, i.e., machine learning, for gathering service line information, required under the Lead and Copper Rule Revisions (LCRR), need to ensure the product meets their goals for both the short and long term. MassDEP recommends that PWS fully evaluate the options and ask all the necessary questions to make an informed decision prior to agreeing to any contract.

Some considerations when evaluating Lead Service Line Predictive Model products:

1. Will the product meet your objectives?
    - Provide Service Line Inventory acceptable for MassDEP reporting
    - Ability for improvement over time
    - Meet your confidence levels
    - Minimize resource inputs to alternatives (in-person verification)
    - Meet LCRR October 2024 reporting deadline
2. What are the biggest obstacles to getting this done?
    - Level of effort and resources to provide the data inputs, i.e., collecting and feeding data to the predictive model to achieve desired confidence level.

        - Ideally, PWS should be looking for a predictive model tool confidence level to be 90 -95% or better with at least 20-25% field verification.

    - Responsibilities for data collection

3. Cost?
    - Upfront cost
    - Future maintenance costs
4. Has the model encountered barriers in the past?
    - Ask for references or examples from systems like yours
5. If the project doesn't succeed, what are the implications?
    - Guarantees to meet the 2024 deadline.

PWS are again reminded to carefully evaluate all products.

34) What is MassDEP's stand on Swordfish Electroscan technology?

MassDEP does not endorse or promote any particular technology but we encourage consultants to educate their clients on the particular product being considered so that they can make an informed decision. Public Water Systems considering electroscan technology or any other type of technology for gathering service line information required under the Lead and Copper Rule Revisions (LCRR), need to ensure the product meets their goals for both the short and long-term including whether the technology can disrupt or destroy the existing coating on the pipe possibly causing more lead to be released after using the technology. MassDEP recommends that PWS fully evaluate the options and ask all the necessary questions to make an informed decision prior to agreeing to any contract.
PWS are again reminded to carefully evaluate all products.

35) Resources

- Lead Service Line inventory template form with the required fields and associated guidance for PWS:
    - This workbook can be used to document the necessary information in your lead service line inventory for your use and submission to the state. This Excel workbook is located at https://www.mass.gov/media/2480901.
- The instructions for using the workbook are located at: https://www.mass.gov/doc/instructions-mass-lead-serviceline-identification-ma-lsli-web-app
- Mass Lead Service Line Identification (MA-LSLI) Web App:
    - MassDEP developed a "crowdsourcing application" (hereafter referred to as "the App") to assist both consumers and PWS to identify lead service lines.

The App is a web-based tool for consumers to assist in the identification of lead service lines. The App is a collection of Smartsheet forms, sheets, and workflow automations that allows your customers to submit photos of their service line for identification purposes. This can be helpful for PWS in compiling their service line inventories and in prioritizing lead service line replacements.

  - The customer is asked to upload one or more photos of their service line and, by following EPA's service line identification guide "Protect Your Tap: A Quick Check for Lead," are asked to attempt to identify their service line material. Water suppliers that sign up to use this service will receive email notifications when their customers make submissions and will have access to their own Smartsheet to keep track of submissions.

- The App is located at https://app.smartsheet.com/b/form/f9ee39b7972f443ca63e8b936cd7f92b.
- Instructions for enrolling in the use of the App are located at https://www.mass.gov/doc/instructions-mass-lead-service-lineidentification-ma-lsli-web-app.
- EPA's "Protect Your Tap: A Quick Check for Lead" is located at https://www.epa.gov/ground-water-and-drinking-water/protect-your-tap-quick-check-lead.
- MassDEP has prepared an example letter for PWSs to adapt and use when offering the App to their customers. You can download the template at https://www.mass.gov/doc/template-letter-for-pws-to-send-to-customers-forma-lsli-app-availability.
- Lead Service Line Replacement Plan Summary Form. According to the US Centers for Disease Control (CDC), "because no safe blood level has been identified for young children, all sources of lead exposure for children should be controlled or eliminated." See https://www.cdc.gov/nceh/lead/prevention/sources/water.htm. To expedite MassDEP public health protection goals, PWSs are expected to both identify lead service lines and have a plan to remove and replace them as soon as possible. PWSs will be expected to have such plans by October 16, 2024, or, as part of applying for DWSRF funding, to remove lead service lines. The Lead Service Line Replacement Plan Summary Form allows a PWS to begin to document their strategy to remove all lead service lines. The Plan Summary must address: a) all lead service lines, b) all lines that are galvanized requiring replacement (GRR), c) a strategy for identifying the material in all lines categorized as "unknown," and d) plans for general lead education and consumer transparency to inform consumers about why it is necessary to remove lead plumbing and lead service lines. MassDEP has developed the Lead Service Line Replacement Plan Summary Form to aid PWS in developing their Lead Service Line Replacement Plans.
- Lead Service Line Replacement Plan Summary Form is located at https://app.smartsheet.com/b/form/8f676b18cc224884a7069e3cc727f968 . PWSs should use the Lead Service Line Replacement Plan Summary Form to document their plans until MassDEP LCRR regulations and programs are finalized.

This FAQ is subject to change depending on the USEPA Lead and Copper Rule Improvements (LCRI) and the promulgation of MassDEP LCRR regulation.

- Funding Opportunities are or will be available for PWS to address Lead.
- Lead Service Lines Inventory and Replacement Plan Loans with 100% Loan Forgiveness: MassDEP is accepting Lead Service Lines planning loan applications, on a rolling basis, while funding is available. Please see the Application. Eligible activities for these planning programs include:
  - Lead Service Line Inventory - Completing a comprehensive Lead Service Line Inventory for both the public and the private portions that will be made publicly available. This comprehensive inventory project could include activities such as inspecting physical service lines, compiling paper records, initiating a consumer lead service line identification program, but must include submitting the complete inventory to MassDEP in a digital format specified by MassDEP or in an alternate format approved by MassDEP that can be readily compiled into the MassDEP data system.
  - Lead Service Line Replacement Program - Preparing a Lead Service Line replacement program for the PWS that complies with the LCRR. PWS' lead service line replacement plans need to incorporate the MassDEP public health protection goal by planning to replace all lead service lines in 5 years or as soon as possible. Use of the MassDEP-provided tools will ensure the submission of a lead service line inventory and lead service line replacement program summary in a digital form acceptable to MassDEP.
  - The information from the training is available:
    - A copy of the video training is available on the MassDEP YouTube channel at https://www.youtube.com/watch?v=xxi05Zh5QyM.
    - The agenda is located at https://www.mass.gov/doc/massdep-service-line-inventory-training-agendaseptember-29-2022 (permalink: https://www.mass.gov/media/2499811/).
    - The Q&A's are located at https://www.mass.gov/doc/qa-from-lcrr-service-line-inventory-training (permalink: https://www.mass.gov/media/2499521/).

36) Lead goosenecks:

a) Are lead goosenecks considered "connectors" or "services"?

Lead connectors are not considered part of EPA's service line definition. However, states may choose to expand this definition when they propose state regulations.

b) If lead gooseneck is upstream of a galvanized water service pipe, is this water service pipe considered a "Galvanized requiring replacement" service?

No. Under the federal definition the connector itself does not play a role in determining if a galvanized service line a GRR.

37) In Massachusetts, are lead pipes considered hazardous waste?

Lead scrap metal, including lead pipes, destined for recycling are considered a generated hazardous waste **exempt** from MA Hazardous Waste Regulations 310 CMR 30.000.

38) Is it acceptable to leave lead lines in place?

Lead pipes left in the ground wouldn't be considered a generated hazardous waste; therefore, it wouldn't be subject to the MA Hazardous Waste Regulations 310 CMR 30.000.
Please note MassDEP strongly encourages removal and recycling of lead pipes.

39) Does Massachusetts have any regulations, or guidance that applies to lead disposal?

Lead scrap metal, including lead pipes, destined for recycling is exempt from the hazardous waste regulations. For more information see 310 CMR 30.202(5)(f) at https://www.mass.gov/doc/310-cmr-30000-hazardous-waste-regulations/download.

40) What happens if someone samples the soil or groundwater due to lead pipes' leakage and lead concentrations are high?

If the lead pipe contaminates soil or groundwater, the Reportable Quantity would likely apply if found to be at/above the Reportable Quantity.

41) Regarding the LSLI, how much weight do historic rules and regulations carry? Can a system classify service lines as non-lead based on local rules and regulations stating that after certain year (i.e., 1930) the use of lead pipe is prohibited?

A water system can classify those buildings constructed after the local or state lead ban date (for MA the effective date was 01/01/86) as not containing lead service lines. However, in addition, the system still needs to use another type of verification to classify buildings constructed prior to the local or state ban (i.e., buildings constructed prior to 1930).

An effective way to start validating your inventory is by using historic rules and regulations. However, systems should be aware that local lead bans prior to the federal/state ban could have been affected by external events such as wars. For example, the war years in the 1930's made many materials scarce and diverted necessary materials to war production, which could had had an effect in local lead bans.

Systems with historic rules and regulations effective prior to war time (i.e., local lead ban effective in 1930 prior to latest federal/state ban (1986)) need to make sure their rules and regulation documents were never replaced and that all subsequent versions also prohibit the use of lead service lines.

For examples of service line verification methods see Q.9.

42) Does the service line inventory that PWSs are required to complete by 10/2024 include all service lines regardless of type (domestic and fire suppression)?

Yes, systems must include all service lines (40 CFR 141.84(a)(2)), regardless of the actual or intended use. These include, for example, service lines with non-potable applications such as fire suppression or those designated for emergency. These service lines could be repurposed in the future for a potable or non-emergency use. Water systems must include in their inventory service lines connected to vacant or abandoned buildings, even if they are unoccupied and the water service is turned off.

43) What if I have no lead service lines and no galvanized service lines requiring replacement, do I still need to do the initial service line inventory?

Yes. See questions 5, 31, and 32.

44) If a utility were to select in the MassDEP Service Line Inventory Workbook the designation "[UNK-NOLG] unknown, definitely does not contain lead or galvanized steel" would the service still count as a lead service as with the other unknown designation?

If a utility were to select UNKNOWN - DEFINITELY DOES NOT CONTAIN LEAD OR GALVANIZED either for the public or private side of the service line, it is certifying that that section of the service line is known not to be lead or galvanized requiring replacement based on a verification method even though the actual material is unknown. Verification methods such as records of pipe size or installation date are acceptable ways to make this identification. If both the public and private sides of the service line are UNK-NOLG, the entire service line will be classified as non-lead service under the LCRR.

45) Will the EPA allow a Public Water System who knows there is no lead in their service territory to submit a statement in lieu of submitting an inventory as is stipulated in 40 CFR 141.84(a)(9)?

No, Under 141.84(a)(1), "All water systems must develop an initial inventory by October 16, 2024, and submit it to the primacy agency in accordance with § 141.90(e).

Under 141.84(a)(9), "When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines (regardless of ownership) in its inventory, it may comply with the requirements in paragraph (a)(8) of this section using a written statement, in lieu of the inventory, declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines. The statement must include a general description of all applicable sources described in paragraphs (a)(3), (5), and (6) of this section used to make this determination."

The stipulation does not alter the requirement to comply with paragraph (a)(1). Rather, if a system has no lead, GRR or unknown services lines paragraph (a)(8), which contains

the requirement that "[t]he service line materials inventory must be publicly accessible" can be met by making a written statement available rather than the full inventory.

Systems can certify that the distribution system has no lead service lines, galvanized requiring replacement or unknown service lines using MassDEP LCRR-NONLSL-CERT form which will be located at https://www.mass.gov/lists/lead-copper-forms-templates (more information about this form will follow).

46) What are the requirements if a system finds a lead service line within its distribution system after being approved for a LCRR-NONLSL-CERT?

If the PWS were to identify LSL or GRR service lines after approval of the LCRR-NONLSL-CERT, the PWS will be required to notify MassDEP within 30 days of such discovery and submit an updated service line inventory and removal plan on a schedule established by the state.

47) If PWS later finds a GRR or unknown service line, must they notify MassDEP within 30 days?

Yes. In accordance with 40 CFR 141.90(e)(3)(ii), the PWS should notify the state within 30 days of such discovery.

48) How should systems without LSLs classify their service lines in the inventory?

The initial inventory must include the system- and customer-owned portions of all service lines in the system's distribution system (40 CFR §141.84(a)(2)) and each service line or portion of the service line must be categorized as non-lead or a non-lead subclassification (e.g., copper or plastic) and zero service lines categorized as lead, galvanized requiring replacement (GRR), or unknown.

49) What other requirements regarding the inventory are water systems with (inventory demonstrated) only non-lead service lines subject to under the LCRR?

Systems whose initial inventory contain only non-lead service lines may provide a written statement that the system has no LSLs or GRRs and a general description of methods used to make the determination to meet inventory public accessibility requirements of the LCRR as per 40 CFR §141.84(a)(9):

"When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines (regardless of ownership) in its inventory, it may comply with the requirements in paragraph (a)(8) of this section using a written statement, in lieu of the inventory, declaring that the distribution system has no lead service lines or galvanized requiring replacement service lines. The statement must include a general description of all applicable sources described in paragraphs (a)(3), (5), and (6) of this section used to make this determination."

Paragraph (a)(8) cited above is referring to the requirement for systems to have their service line materials inventory publicly accessible. Therefore, systems with LSLs, GRRs and/or unknowns must make their service line materials inventory publicly accessible.

Include language in their annual Consumer Confidence Report (CCR) explaining how customers can access the inventory or provide a statement with the description of methods used to make the determination (40 CFR §141.153(d)(4)(xi)). *NOTE: this requirement applies to community water systems (CWSs) only*. However, MassDEP may provide a CCR for NTNC systems. When/if MassDEP provides a CCR to a NTNC system it must be posted. If the system subsequently finds an LSL or GRR service line (40 CFR §141.90(e)(3)(ii)) notify the state within 30 days and prepare an updated inventory on a schedule established by the state.

See Q45 for more information about certification of Non-lead service lines.

50) What is the definition for galvanized services with lead goosenecks? If a PWS has galvanized services with lead goosenecks, will they be considered galvanized service requiring replacement or not requiring replacement?

EPA defines a "Galvanized Requiring Replacement" line as those where a galvanized service line is or was at any time downstream of a lead service line or is currently downstream of a "Lead Status Unknown" service line.

Being downstream of a lead connector does not make a galvanized service line a galvanized requiring replacement. However, under the LCRR, the water system must replace any lead gooseneck, pigtail, or connector it owns when encountered during planned or unplanned water system infrastructure work. -

51) When a PWS replaces a lead gooseneck and galvanized service do they have to complete the LSL education with the customer and provide a water pitcher for 6 months?

If the disturbance of a lead, galvanized requiring replacement, or lead status unknown service line results from the replacement of a gooseneck, pigtail, or connector, the water system must provide the person served by the water system at the service connection with information about the potential for elevated lead levels in drinking water as a result of the disturbance, public education materials, a pitcher filter or point-of-use device certified by an American National Standards Institute accredited certifier to reduce lead, instructions to use the filter, and six months of filter replacement cartridges.

If the system replaces a gooseneck, pigtail, connector, and the rest of the service line can be categorized as non-lead the system doesn't have to provide a pitcher or complete public education.

Please remember that it is important to always notify consumers of any disturbance created from construction or pipe replacement. This provision may change depending on the Lead and Copper Rule Improvements (LCRI) to be released.

52) When will MassDEP finalize the LCRR rule for Massachusetts?

The Drinking Water Program is drafting the regulations and we anticipate publishing a proposed rule in early 2024. Please note that EPA is currently working on the lead and copper rule improvements (LCRI) where the Agency is working on improvements to the lead service line replacement (LSLR) requirements, they are also working on strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions, and reducing the complexity of the regulation through improvement of the action and trigger level construct. EPA intends to promulgate the LCRI prior to October 16, 2024. For more information see https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements

53) What changes has EPA indicate it may make to the LCRR?

EPA is currently working on the lead and copper rule improvements (LCRI) where the Agency is working on improvements to the lead service line replacement (LSLR) requirements, they are also working on strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions, and reducing the complexity of the regulation through improvement of the action and trigger level construct. EPA intends to promulgate the LCRI prior to October 16, 2024. For more information see https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements.

54) We are evaluating meter replacement programs for our clients and utilizing these programs for compliance with the LSL inventory. 40 CFR 141.85(f)(2) of the LCRR – text pasted below – mentions water meter replacements. Is this piece of the LCR R valid right now if a meter installer comes across a lead service line during a water meter replacement program?
"If the disturbance of a lead, galvanized requiring replacement, or lead status unknown service line results from the replacement of an inline water meter, a water meter setter, or gooseneck, pigtail, or connector, the water system must provide the person served by the water system at the service connection with information about the potential for elevated lead levels in drinking water as a result of the disturbance, public education materials that meet the content requirements in paragraph (a) of this section, a pitcher filter or point-of-use device certified by an American National Standards Institute accredited certifier to reduce lead, instructions to use the filter, and six months of filter replacement cartridges. The water system must comply with the requirements of this paragraph (f)(2) before the affected service line is returned to service."

The section cited above refers to the lead and copper rule revisions (LCRR) which will be effective on October 16, 2024. Even though under the current LCR there are no specific requirements to provide consumers with water pitchers, POU devices or public education materials after water meter replacements, if a PWS is in violation of the current LCR MassDEP may require the PWS to take additional actions to protect public health. As PWSs prepare for the upcoming LCRR, they must plan how they will address the LCRR requirements. Please note it is always a good safe drinking water and public health protection best practice to provide consumers with information about possible elevated levels if there is disturbance due to water meter replacement.

Please note*: LCRR information is subject to change depending on the USEPA Lead and Copper Rule Improvements (LCRI) and the promulgation of MassDEP LCRR regulation.*

55) Is the service line inventory required to be presented to the State on the Excel spreadsheet to be deemed acceptable?

States need to manage the inventories submitted by all PWSs and therefore MassDEP needs the inventories to be submitted in an electronic format that can be processed. PWS must provide MassDEP with the required fields that are identified on the spreadsheet. To see more information about the required fields please see https://www.mass.gov/media/2480886/. The PWS may use another format but must submit the inventory to MassDEP as a CSV file. A CSV (comma-separated values) file is a text file that has a specific format which allows data to be saved in a table structured format. For assistance with submitting the service line inventory contact the Drinking Water Program at program.director-dwp@mass.gov. Subject LCRR.